



Legislative
Services Agency

MINUTES

Iowa Learning Technology Study Committee

November 5, 2004

MEMBERS PRESENT:

Senator Jeff Angelo, Cochairperson
Senator Daryl Beall
Senator Robert E. Dvorsky
Senator John Putney
Senator Ron Wieck

Representative Carmine Boal, Cochairperson
Representative Swati Dandekar
Representative Ervin Dennis
Representative Rod Roberts
Representative Cindy Winckler

MEETING IN BRIEF

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- I. Procedural Business.
- II. East Greene Community School District — Mr. Jon Hueser.
- III. Learning Post Associates — Dr. Gil Valdez.
- IV. Iowa Department of Education — Ms. Judy Jeffrey.
- V. Loess Hills Area Education Agency 13 — Ms. Marilyn Weber.
- VI. Des Moines Area Community College — Ms. Ann Watts.
- VII. Written Documents on File With the Legislative Services Agency.



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I. Procedural Business.

Call to Order. The second of three meetings of the Iowa Learning Technology Study Committee was called to order by Cochairpersons Senator Jeff Angelo and Representative Carmine Boal at 10:06 a.m., Friday, November 5, 2004, in Room 116 of the State Capitol Building in Des Moines, Iowa.

Preliminary Business. Cochairpersons Angelo and Boal thanked members for attending the meeting. Cochairperson Boal requested that roll be taken. After Committee discussion, Cochairperson Boal ordered that the minutes from the September 30 meeting be approved. The minutes were approved without objection.

Adjournment. The meeting recessed for lunch at 12:00 p.m., reconvened at 1:06 p.m., and adjourned at 2:58 p.m.

Next Meeting Date. The Committee tentatively agreed to meet again on November 22, 2004.

II. East Greene Community School District – Mr. Jon Hueser.

General Remarks. Cochairperson Boal recognized Mr. Jon Hueser, Technology Director and Assistant Curriculum Coordinator for the East Greene Community School District, which includes the communities of Dana, Grand Junction, and Rippey. Mr. Hueser described his school district's success in integrating technology into the instructional programs and practices of the elementary, middle, and secondary levels. According to Mr. Hueser, the district is small and rural, located in a high poverty area, and its enrollment is declining.

The Use of Technology. Mr. Hueser emphasized cost-effective strategies to provide technology, including acquiring equipment by the Internet and leasing two-year-old equipment. The district has leased tablet PCs and projectors on a three-year basis for its teachers in grades 3 through 12, and has installed multiple computer labs in each of its buildings. The computers are connected to five network servers. He noted that parents can receive student progress reports via e-mail or check students' grades by accessing the district's web site. The best parental communication tool, he stated, is a web-based student information system known as Powerschool. The district sets aside 25 percent of its staff development days for technology training. Teachers are being trained to use an anti-plagiarism web site (www.turnitin.com). Students in grades three and four meet daily for nine weeks of training using a typing software program. In grades two through six a self-paced program allows the staff to determine the technology skills of students and track their progress at each grade level. The district has lesson plans to help teachers integrate technology into their curricula.

Cooperation With Other Agencies. Mr. Hueser discussed the importance of cooperating with other educational agencies. He stated that East Greene Community School District had developed a close relationship with Iowa Central Community College and Prairie Lakes Area Education Agency. He also stated that the school district cooperates with neighboring school districts and that they have coordinated their calendars and class periods. The Cisco



Networking Academy is offered by the school district, attracting the participation of students from four other districts. Mr. Hueser expressed admiration for area education agencies (AEAs) and stated that they provided important online databases and the training. He also praised the Department of Education for its support, noting the ease with which district data can now be submitted to the department. He stated that schools must find ways to use the Iowa Communications Network (ICN) more, share staff via the ICN, and work more closely with community colleges to provide more advanced courses to students.

Committee Questions. Cochairperson Boal invited committee members to ask Mr. Hueser questions. Mr. Hueser stated that rural communities have a critical need for high-speed Internet connection and stated that his community has negotiated for such service with a telephone company. He stated that the district's technology budget is approximately \$40,000 (approximately \$100 per student) and supported in part by the county's one cent sales tax. Mr. Hueser stated that in order to encourage innovation, the state should provide small one-time grants of between \$5,000 and \$25,000 to districts that are interested in pursuing special projects upon condition that they publish the results of their efforts.

III. Learning Point Associates – Dr. Gil Valdez.

General Remarks. Cochairperson Boal recognized Dr. Gil Valdez, Deputy Director of Learning Point Associates, which includes the North Central Regional Educational Laboratory (NCREL), Director of the North Central Regional Technology in Education Consortium (NCRTEC), and Co-Director of the North Central Eisenhower Mathematics and Science Consortium (NCEMSC). Dr. Valdez updated the Committee regarding research related to the use of educational technology, especially the contexts in which technology works best, whether technology use increases student achievement levels, and recent national trends in the use of educational technology.

Teacher Professional Development. Dr. Valdez stated that teacher professional development is absolutely necessary and that schools should allocate 30 percent of their technology budget for that purpose. Professional development should be seen as an ongoing process. Successful professional development requires administrators who understand and support the use of technology, sufficient access to hardware and applications that are updated as needed and are appropriate to the learning process, a high level of technical support, and ongoing evaluation. Good practitioner preparation programs that successfully integrate technology in their curriculum have strong mentor teachers who provide honest feedback to students. Schools need to employ two or three technical experts to assist teachers in improving their curricula. He emphasized the importance of reliability, technical support, and sharing success. Dr. Valdez praised Iowa's AEA system as possibly the best intermediate support system in the country.

Research. Dr. Valdez stated that it is difficult for researchers to evaluate positive effects of technology, but that gains in student achievement were marginal in cases in which student achievement exceeds the mean average. He noted that the use of laptops tends to improve



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student attendance and attitudes and encourages and helps sustain inquiry-oriented, project-based, and long-term classroom activities; and stated that some studies have shown slightly higher achievement in certain subjects when laptops are used. However, he cautioned that other studies have not demonstrated similar results. Technology can produce positive changes in instructional practices and is very important for special-population students, particularly for those in need of assistive technology. Computers have a significant impact on learning and enabling students to acquire skills required for the 21st century. One of the best uses of computers in schools is in teaching concepts that are difficult to verbally describe, but which computers can animate for better comprehension by today's visual learners. He recommended that schools begin instruction in higher mathematics and science in grades two and three.

Trends. Dr. Valdez stated that online learning is becoming increasingly a more important instructional delivery option, especially in rural schools. The most recent and powerful applications and content are increasingly only available on the Internet. He also noted that computer animation is growing in importance because it provides visual and representation support to abstract concepts, such as representing the moving parts of an engine.

Committee Questions. Cochairperson Boal invited Committee members to ask Dr. Valdez questions. In response to questions by Cochairperson Angelo and Cochairperson Boal, Dr. Valdez emphasized the importance of professional development and teacher training. Dr. Valdez discussed the use of technology to enhance problem-solving skills. Dr. Valdez and Senator Dvorsky discussed the need to create a sound relationship between schools and the business community. Representative Winckler asked about methods to limit student access to inappropriate internet sites. Dr. Valdez discussed the combined use of filter programs and blocking programs to limit access.

IV. Iowa Department of Education – Ms. Judy Jeffrey.

General Remarks. Cochairperson Boal recognized Ms. Judy Jeffrey, Interim Director of the Iowa Department of Education, who provided background about Iowa's school improvement efforts, identified recent technology enhancements for comprehensive school improvement, and described the efforts of a Technology Advisory Committee.

Technology Study. Ms. Jeffrey stated that the Iowa Department of Education, under the direction of the State Board of Education, convened a Technology Advisory Committee to develop guiding principles and make recommendations about policies that would facilitate the effective implementation of technology in Iowa schools, best practices related to the use of technology in the classroom, and relevant statutes and administrative rules. She noted that the Committee has completed the first phase of a two-phase study. During the first phase, the Committee considered major issues of interest, including leadership, quality teaching, professional development, curriculum, equitable access, and educational technology planning. The second phase is designed to answer questions raised during the first phase and to collect more data from schools.



Student Use of Technology. Ms. Jeffrey noted that in eight years, the ratio of pupils per computer in Iowa's public schools has decreased from 7.2 to 3.7. Over 90 percent of school buildings in Iowa have high-speed Internet access, and 48.7 percent of public school buildings have access to a wireless network. Megabit usage per second has more than doubled since 2001.

Budgetary Information. Ms. Jeffrey provided funding and expenditure information by school district and by the state and federal governments. The state provided funding specifically for education technology from fiscal year 1997 to fiscal year 2002, expending \$163 million in total over the six-year period. The state also receives funding under federal programs, including the Star Schools Act, the Technology Literacy Challenge Fund, the Enhancing Education Through Technology Act, and Evaluating State Educational Technology Program Grants under the Enhancing Education Through Technology Act of 2001.

Questions. Cochairperson Boal invited committee members to ask questions. When asked about the possibility of redirecting federal moneys to finance a laptop initiative, Ms. Jeffrey stated that the department would have to change its state technology plan as approved by the U.S. Department of Education, which might jeopardize some of those federal dollars. Ms. Jeffrey was concerned that school districts using federal moneys for long-range plans could see their funding withdrawn. She stated that the state technology plan will be valid until 2007. The department would need to submit a new application to the federal department and receive federal approval for any changes to the state plan. She discussed the state's participation in a special private program. Under the Bill and Melinda Gates Foundation State Challenge Grant, participating administrators received a \$900 credit to purchase technology. Representative Winckler and Ms. Jeffrey discussed how the curriculum can be integrated with technology. Ms. Jeffrey promised to place the guiding principles the Technology Advisory Committee developed during FY 2004 on the department's web site and to provide to members a list of the school buildings that do not have high-speed Internet access.

V. Loess Hills Area Education Agency 13 – Ms. Marilyn Weber.

Remarks. Cochairperson Boal recognized Ms. Marilyn Weber, Administrator of the Loess Hills Area Education Agency (AEA) 13. She stated that the AEA includes 31 public school districts. She explained that technology began to become integrated into Iowa schools in the 1990s. She noted that technology has presented a number of challenges, including software upgrades, system compatibility, professional development, equity access, support, and funding. Ms. Weber emphasized the need for maintenance and support. She described how teachers and districts currently use technology, identified the challenges of providing and maintaining adequate instructional technology in the schools, and listed the technology support AEAs make available to school districts. She also discussed the need for professional development and teacher collaboration.

Questions. Cochairperson Boal invited Committee members to ask Ms. Weber questions. Senator Wieck and Ms. Weber discussed the use of the ICN and how it might be used to



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reduce student transportation. Cochairperson Boal and Ms. Weber discussed methods to promote planning among school districts, including the use of common calendars and bell schedules.

VI. Des Moines Area Community College – Ms. Ann Watts.

Cochairperson Boal recognized Ms. Ann Watts, Instructional Design Coordinator, Des Moines Community College (DMACC). Ms. Watts stated that DMACC includes six campuses around the state. She stated that today students tend to be visual learners who expect instant responses. Ms. Watts discussed how the SharePoint portal facilitates communication within the college and is used as an outreach tool with communities, including high schools. It has allowed for collaborative efforts, including document-sharing functions. She also discussed how instructors create customized websites for each class, which enable students to access information and to contribute to a successful learning environment.

VII. Discussion and Closing Remarks.

Cochairperson Boal invited members of the Committee to discuss matters of interest for the third meeting. The Committee tentatively agreed to meet on Monday, November 22, 2004. The Committee requested that staff provide members with a copy of the Committee's charge, the Technology Advisory Committee's recommendations (as soon as they are made available by the Department of Education), and a copy of the relevant provisions of S.F. 2298 recently passed by the General Assembly (2004 Iowa Acts, chapter 1175, section 244). Senator Dvorsky asked the members to consider inviting a person to provide testimony regarding technology initiatives at Prairie High School in Cedar Rapids. Cochairperson Boal encouraged members to consider the Committee's direction when considering recommendations. Cochairperson Boal thanked members for their participation before adjourning the meeting.

VIII. Written Documents on File With the Legislative Services Agency.

Committee information may be accessed on the Internet at:

www4.legis.state.ia.us/asp/Internet/Committees/Committee.aspx?id=60

1. "Technology in Schools," PowerPoint Presentation presented by Mr. Jon W. Hueser.
2. Mr. Jon W. Hueser E-Mail to Committee members.
3. "Effective Educational Technology Research - Context, Achievement & Trends," presented by Dr. Gil Valdez, Learning Point Associates.
4. "State of Technology in Iowa," PowerPoint Presentation presented by Ms. Judy Jeffrey.
5. "Community College Leverages Microsoft SharePoint Software, HP Infrastructure to Create Multi-Campus Educational Portal," submitted by Ms. Ann Watts.



6. Des Moines Area Community College PowerPoint presentation, presented by Ms. Ann Watts.
7. "DMACC's Vision for the SharePoint Portal," submitted by Ms. Ann Watts.

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